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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,839

09/17/2003

Sung Uk Moon

242923US90

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05/28/2009

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EXAMINER

WENDELL, ANDREW

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

05/28/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/663,839	Applicant(s) MOON ET AL.	
	Examiner ANDREW WENDELL	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 4/13/2009 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harel et al. (US Pat# 6,128,472) in view of Kall et al. (US Pat# 7,149,195).

Regarding claims 1 and 3, Harel teaches a radio communication system having base stations (Fig. 3) and mobile stations 106 (Fig. 1), to perform multicast

Art Unit: 2618

communication (Col. 2 line 62-Col. 3 line 9), wherein mobile stations each comprises a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to the base station (Col. 4 lines 15-25), the response signal transmitted from each of the mobile stations in response to a control signal for multicast group (Col. 4 lines 15-25); and the base station comprises a response signal transmitter configured to transmit to the controller, one response signal selected from a plurality of response signals transmitted from mobile stations, the plurality of response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join (Col. 2 line 62-Col. 3 line 9 and Col. 4 line 36-Col. 5 line 12, one message out of a plurality messages is transmitted to a controller). Harel fails to teach a response signal counter.

Kall teaches a base station comprises (Col. 4 line 9, Base Station Controller) a response signal counter configured to count the number of response signals including a same group ID identifying a same multicast group (Col. 4 lines 8-19, "when the number of mobile stations within a particular cell exceeds a threshold number..."); a judger configured to judge whether a counted number of response signals exceeds a predetermined number (Col. 4 lines 8-19, "when the number of mobile stations within a particular cell exceeds a threshold number..."); and a response signal transmitter configured to transmit a single response signal including information that the counted number of response signals exceeds the predetermined number, or the counted number of response signals, when the counted number of response signals exceeds the predetermined number (Col. 4 lines 8-19, after the threshold is meet RANcast is

Art Unit: 2618

implemented therefore a message had to be sent that informed of the counted number of response signals is more than the predetermined number).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a response signal counter as taught by Kall into Harel's multicast system in order to improve efficient utilizations of radio resources.

Regarding claim 5, Harel teaches a detector 108 and 110 (Fig. 3) configured to detect a reception of a detected response signal transmitted from any one of the mobile stations 106 (Fig. 1); and wherein a response signal holder holds the detected response signal for a predetermined duration after the reception of the detected response signal (Col. 2 line 62-Col. 3 line 9 and Col. 4 line 36-Col. 5 line 12). Harel fails to teach a mobile station.

Kall teaches mobile stations (Col. 4 lines 8-19).

Regarding claims 9 and 10, Harel teaches a receiver 112 (Fig. 3) configured to receive a single response signal transmitted from at least one base station, the single response signal including a same group ID identifying a same multicast group to which mobile stations are requesting to join (Col. 4 line 15-Col. 5 line 12); an extractor 112 (Fig. 3) configured to extract the response signals from the single response signal. Harel fails to teach response signals being more than a predetermined number and a radio network controller.

Kall teaches a radio network controller 36 (Fig. 1) a receiver configured to receive a single response signals transmitted from base stations, the single response

Art Unit: 2618

signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join (Col. 5 line 65-Col. 6 line 19) and including information that a counted number of received response signals exceeds a predetermined number (Col. 4 lines 8-19); an extractor configured to extract the counted number of response signals from the single response signal (Col. 4 lines 8-19); and a radio controller 36 (Fig. 1) configured to perform delivery control on the mobile stations joining in the same multicast group using a common circuit common to the mobile stations when the counted number of response signals exceeds the predetermined number, and to perform delivery control using respective individual circuits of the mobile stations when the counted number of response signals is not extracted from the single response signal (Col. 4 lines 8-19 and Col. 5 line 65-Col. 6 line 19, by is implementing RANcast therefore a message had to be sent that informed of the counted number of response signals is more than the predetermined number).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate response signals being more than a predetermined number and a radio network controller as taught by Kall into Harel's multicast system in order to improve and efficient utilizations of radio resources (Col. 3 lines 25-27).

Regarding claim 11, the combination including Kall teaches wherein the response signal transmitter is configured to transmit, the response signals transmitted from the mobile stations, instead of transmitting the single response signal, when the

Art Unit: 2618

counted number of response signals does not exceed the predetermined number (Col. 4 lines 8-19 and Col. 5 line 65-Col. 6 line 19).

Regarding claims 12 and 13, the combination including Kall teaches wherein the judger is further configured to judge whether the counted number of response signals exceeds the predetermined number for more than a predetermined duration (Col. 4 lines 8-19).

Response to Arguments

Applicant's Remarks	Examiner's Response
Regarding claims 1 and 3, "For example, Applicants respectfully submit that Harel and Kall fail to teach or suggest a base station that counts the number of multicast request signals, and Harel and Kall also fail to teach or suggest a base station that transmits a single response signal when the counted number of response signals from the mobile station exceeds the predetermined number."	See Col. 4 lines 9-11 of Kall where it states "calculates the number of mobile stations that have requested the specific broadcast or multicast service.....". The base station controller which is connected and apart to the base station counts the multicast signals of only mobile stations requesting multicast service as opposed to mobile station within a particular cell only. Harel teaches a single response signal 430 (Fig. 4).
"Accordingly, Applicants respectfully submit that Kall and Harel fail to teach or suggest 'a base station comprises: a	As described above, Kall teaches in Col. 4 lines 8-19, the mobile stations are same ID since they are requesting multicast

response signal counter configured to count the number of response signals including a same group ID identifying a same multicast group,' as recited in Claim 1, and as similarly recited in Claim 3.”	service. Also, Harel teaches a same group ID 405 (Fig. 4, SUs are formed multicast group).
“Additionally, Applicants note that Harel describes a feature of transmitting a single signal selected from a plurality of signals to the base station controller.”	Harel clearly teaches transmitting a single signal 430 (Fig. 4) selected from a plurality of signals 420 (Fig. 4) to the controller 430 (Fig. 4).
“Applicants respectfully submit that Harel and Kall also fail to teach or suggest each feature of amended Claims 9 and 10 for reasons similar to those noted above with respect to Claims 1 and 3.”	See above responses.
“Applicants respectfully submit that Harel and Kall are silent regarding any judgment based on a counted number of response signals being greater than a predetermined number for more than a predetermined duration.”	The duration is not defined or set. As the limitation is right now there is no boundary to what the duration could be. Both in Harel and Kall it is obvious there is some duration in order to receive signals first before exceeding a counted number.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nay A. Maung/
Supervisory Patent Examiner, Art Unit 2618

/Andrew Wendell/
Examiner, Art Unit 2618

5/18/2009